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1 UNITED STATES PATENT AND TRADEMARK OFFICE

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4 BEFORE THE BOARD OF PATENT APPEALS
5 AND INTERFERENCES
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8 *Ex parte* ROBERT J. LAFERRIERE and FRANCIS W. KASPER
9

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11 Appeal 2007-3481
12 Application 09/682,238
13 Technology Center 3700
14

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16 Decided: July 8, 2008
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19 Before WILLIAM F. PATE, III, LINDA E. HORNER, and
20 ANTON W. FETTING, *Administrative Patent Judges*.
21 FETTING, *Administrative Patent Judge*.

22 DECISION ON APPEAL

23 STATEMENT OF CASE

24 Robert J. Laferriere and Francis W. Kasper (Appellants) seek review under
25 35 U.S.C. § 134 of a final rejection of claims 16-42, the only claims pending in the
26 application on appeal.

27 We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b) (2002).

28
29 We AFFIRM.

1 The Appellants invented a technique for collaboratively training, servicing,
2 managing and interacting with a remote computing system and persons associated
3 with a medical system, such as a medical diagnostic imaging system. It provides a
4 shared computing environment for a remote computing system coupled to a
5 medical diagnostic imaging system and a collaborative computing environment
6 between a trainee and a remote trainer for interactively instructing a trainee
7 (Specification 3: ¶'s 0006-8).

8 An understanding of the invention can be derived from a reading of exemplary
9 claims 16, 28, and 34, which are reproduced below [bracketed matter, emphasis,
10 and some paragraphing added].

11 16. A method for remotely training persons having a medical
12 diagnostic imaging system, the method comprising:

13 [1] providing a collaborative computing environment between a
14 trainee and a remote trainer for a medical diagnostic imaging system,

15 the collaborative computing environment comprising

16 a first computing system operated by the trainee and

17 a second computing system; and

18 [2] interactively instructing the trainee via the collaborative
19 computing environment, wherein interactively instructing the trainee
20 includes

21 *controlling* the first computing system

22 via the second computing system

23 in an operating system-independent manner.

24 28. A method for collaborating between remote computing
25 environments, including a medical diagnostic imaging system, the
26 method comprising:

27 [1] initiating a link between a first and a second remote computing
28 environment;

1 [2] sharing a graphical user interface with the first and second remote
2 computing environment; and

3 [3] collaboratively interacting with a medical diagnostic imaging
4 system coupled to the first remote computing environment,

5 wherein the second remote computing environment *interacts*
6 with the medical diagnostic imaging system via the first remote
7 computing environment.

8 34. A system for collaboratively interacting between remote
9 computing environments associated with a medical diagnostic
10 imaging system, the system comprising:

11 [1] a first computing system coupled to a medical diagnostic imaging
12 system;

13 [2] a second computing system remotely coupled to the first
14 computing system via a network; and

15 [3] a user interface shared by the first and second computing systems
16 for collaboratively interacting with the medical diagnostic imaging
17 system,

18 wherein the second computing system *interacts* with the
19 medical diagnostic imaging system

20 by *controlling* the first computing system.

21
22 This appeal arises from the Examiner's final rejection, mailed June 1, 2005.
23 The Appellants filed an Appeal Brief in support of the appeal on December 19,
24 2005. An Examiner's Answer to the Appeal Brief was mailed on May 5, 2006. A
25 Reply Brief was filed on July 10, 2006.

PRIOR ART

The Examiner relies upon the following prior art¹:

Slattery	US 6,514,085 B2	Feb. 4, 2003
Ross	US 6,608,628 B1	Aug. 19, 2003
Stein	US 5,684,952	Nov. 4, 1997

REJECTIONS

Claims 16-42 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Slattery and Ross.

Claim 16 stands rejected under 35 U.S.C. § 102(b) as anticipated by Stein.

Claim 16 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Stein and Ross.

ISSUES

The issues pertinent to this appeal are

- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 16-42 under 35 U.S.C. § 103(a) as unpatentable over Slattery and Ross.
- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claim 16 under 35 U.S.C. § 102(b) as anticipated by Stein.

¹ The Examiner also refers to Microsoft, Administering an ISP (Answer 2), but this is not part of any of the Examiner's rejections.

- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claim 16 under 35 U.S.C. § 103(a) as unpatentable over Stein and Ross.

The pertinent issue turns on whether the art describes allowing a trainer to control a trainee's computing system.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Facts Related to Claim Construction

01. The disclosure contains no lexicographic definition of "computing system."

02. The ordinary and customary meaning of "computing system" is a network of related computer software, hardware, and data transmission devices.²

² *American Heritage Dictionary of the English Language* (4th ed. 2000) – definition of a system as applied to computing.

Facts Related to Appellants' Disclosure

03. The computer systems described in the Specification include workstations that operate on a UNIX platform. However, any other suitable platform may be employed, including Solaris, IRIX, LINUX and so forth. Collaborative computing between a plurality of computing systems at a plurality of remote locations, where each of the computing systems may have a distinctly different operating system or platform is possible (Specification 5:¶ 0018).

Slattery

04. Slattery is directed to a system for training a user in controlling a device. This system includes a user computer for accepting device control information, and a device controller remotely connected to the user computer. The device controller receives the device control information from the user, and transfers device control information to the device (Slattery 1:57-65).

05. A user may remotely connect to a device controller using a user computer (Slattery 2:1-2).

06. Slattery describes a system connecting a computer to a set of devices through the internet and a pod controller. The pod controller may control one or more pods each of which may contain one or more user equipment devices, such as CISCO type switches or routers, Programmable Logic Controllers (PLCs), Chemistry Equipment, or any other type of device (Slattery 3:32-52; Fig. 1).

07. The pod controller may include a device control module, a user communications module, a mentor communications module, an

1 infrastructure control module, a device communications, control, and
2 multiplexor module, and an interface to the device module (Slattery
3 3:61-67; Fig. 3).

4 08. The device control module is used to control user accessible devices.
5 It incorporates the control software that enables the pod control system
6 to load starting configurations into the user devices, reset the user
7 devices and save final configurations (Slattery 4:3-7; Fig. 3).

8 09. The user communications module operates such that when a user
9 connects to a user device, the connection is made through the user
10 communications module. This module receives the connection from the
11 network and validates the user's authorization to access specific devices.
12 This module further translates information received by a user in one
13 protocol into a protocol for feeding into the user device (Slattery 4:9-16;
14 Fig. 3).

15 10. The mentor communications module permits a mentor to monitor and
16 participate in controlling the user devices during a learning exercise. The
17 mentor communications module authenticates and authorizes the mentor
18 to connect to specific devices through a computer. A mentor may be a
19 program, such as an Artificial Intelligence program, a person, or any
20 type of hardware or software capable of aiding a user in learning about
21 the user device and its operation (Slattery 4:17-25; Fig. 3).

22 11. The infrastructure control module allows additional devices to be
23 interconnected to the user devices in order to replace real-world
24 scenarios. These devices are part of the infrastructure and may require
25 separate control by the pod controller. As such, this module provides the

1 control of the infrastructure devices that are needed to create a real-
2 world scenario for the user (Slattery 4:26-32; Fig. 3).

3 12. A device communications, control, and multiplexor module provides
4 low-level communications and control for each device. In addition, this
5 module provides a mechanism for multiple modules to simultaneously
6 communicate with a single device (Slattery 4:38-42; Fig. 3).

7 13. The interface to device module provides the pod controller with the
8 capability of the pod controller to communicate directly with the device
9 (Slattery 4:55-58; Fig. 3).

10 14. Slattery describes KIBITZ as a program that allows two users to
11 collaborate over a network while interacting with a single program.
12 Thus, by using one KIBITZ for each user device, everything the user
13 types can be seen by the mentor, and vice versa (Slattery 7:55-60).

14 *Ross*

15 15. Ross is directed to enabling a number of geographically distributed
16 users to collaboratively view and manipulate images of an object. A data
17 structure including data representing the object is maintained that
18 includes a set of variables that are shared by each of a number of remote
19 processing systems. Data is multicast to each of the remote processing
20 systems based on the data structure, to allow the image to be displayed
21 on each of the remote processing systems. Transmission of user inputs
22 applied at each of the client systems is coordinated, to allow the image
23 displayed on each of the client systems to be updated in real-time in
24 response to user inputs applied at each other client system (Ross 3:7-23).

1 16. Ross's image data are medical image data generated from a CT or
2 MRI scan (Ross 4:25-27).

3 17. Ross relies on OpenGL, an open system with well-documented
4 application program interfaces (API's) for its graphics. This allows
5 Ross's system to operate under a variety of different operating systems
6 (Ross 10:44-52)

7 *Stein*

8 18. Stein is directed to networked computer workstations that are
9 particularly suited for use in classroom and other instructional types of
10 environments, and enabling an administrator to monitor and control
11 individual workstations within the network (Stein 1:9-14).

12 *Facts Related To The Level Of Skill In The Art*

13 19. Neither the Examiner nor the Appellants has addressed the level of
14 ordinary skill in the pertinent arts of tracking items and data formatting.
15 We will therefore consider the cited prior art as representative of the
16 level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d
17 1350, 1355 (Fed. Cir. 2001) ("[T]he absence of specific findings on the
18 level of skill in the art does not give rise to reversible error 'where the
19 prior art itself reflects an appropriate level and a need for testimony is
20 not shown'") (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*,
21 755 F.2d 158, 163 (Fed. Cir. 1985).

22 20. One of ordinary skill knew that operating systems such as Solaris,
23 IRIX, and LINUX, were heavily based on UNIX and had a high degree
24 of commonality with UNIX.

21. One of ordinary skill knew that most operating systems provided substantially similar input and output capabilities and therefore accommodated programs that could be compiled to operate in a substantially similar manner as in any other operating system. One of ordinary skill similarly knew that most popular programming languages that required compiling provided a syntax and grammar independent of operating systems.

22. One of ordinary skill knew that OpenGL was an open system graphics software package. One of ordinary skill knew that open systems were those whose API linkages for programming were well-documented and therefore could be accessed in any operating system environment in which such a package was supported.

Facts Related To Secondary Considerations

23. There is no evidence on record of secondary considerations of non-obviousness for our consideration.

PRINCIPLES OF LAW

Claim Construction

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification. *In re Prater* , 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1369 (Fed. Cir. 2004).

Limitations appearing in the specification but not recited in the claim are not read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed.

1 Cir. 2003) (claims must be interpreted “in view of the specification” without
2 importing limitations from the specification into the claims unnecessarily)

3 Although a patent applicant is entitled to be his or her own lexicographer of
4 patent claim terms, in *ex parte* prosecution it must be within limits. *In re Corr*,
5 347 F.2d 578, 580 (CCPA 1965). The applicant must do so by placing such
6 definitions in the Specification with sufficient clarity to provide a person of
7 ordinary skill in the art with clear and precise notice of the meaning that is to be
8 construed. *See also In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (although
9 an inventor is free to define the specific terms used to describe the invention, this
10 must be done with reasonable clarity, deliberateness, and precision; where an
11 inventor chooses to give terms uncommon meanings, the inventor must set out any
12 uncommon definition in some manner within the patent disclosure so as to give
13 one of ordinary skill in the art notice of the change).

14 *Anticipation*

15 "A claim is anticipated only if each and every element as set forth in the claim
16 is found, either expressly or inherently described, in a single prior art reference."
17 *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir.
18 1987). "When a claim covers several structures or compositions, either generically
19 or as alternatives, the claim is deemed anticipated if any of the structures or
20 compositions within the scope of the claim is known in the prior art." *Brown v.*
21 *3M*, 265 F.3d 1349, 1351 (Fed. Cir. 2001). "The identical invention must be
22 shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki*
23 *Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). The elements must be arranged
24 as required by the claim, but this is not an *ipsisimilis verbis* test, i.e., identity of
25 terminology is not required. *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990).

1 *Obviousness*

2 A claimed invention is unpatentable if the differences between it and the
3 prior art are “such that the subject matter as a whole would have been obvious at
4 the time the invention was made to a person having ordinary skill in the art.” 35
5 U.S.C. § 103(a) (2000); *KSR Int’l v. Teleflex Inc.*, 127 S.Ct. 1727 (2007); *Graham*
6 *v. John Deere Co.*, 383 U.S. 1, 13-14 (1966).

7 In *Graham*, the Court held that that the obviousness analysis is bottomed on
8 several basic factual inquiries: “[(1)] the scope and content of the prior art are to be
9 determined; [(2)] differences between the prior art and the claims at issue are to be
10 ascertained; and [(3)] the level of ordinary skill in the pertinent art resolved.” 383
11 U.S. at 17. *See also KSR*, 127 S.Ct. at 1734. “The combination of familiar
12 elements according to known methods is likely to be obvious when it does no more
13 than yield predictable results.” *KSR*, at 1739.

14 “When a work is available in one field of endeavor, design incentives and
15 other market forces can prompt variations of it, either in the same field or a
16 different one. If a person of ordinary skill can implement a predictable variation,
17 § 103 likely bars its patentability.” *Id.* at 1740.

18 “For the same reason, if a technique has been used to improve one device,
19 and a person of ordinary skill in the art would recognize that it would improve
20 similar devices in the same way, using the technique is obvious unless its actual
21 application is beyond his or her skill.” *Id.*

22 “Under the correct analysis, any need or problem known in the field of
23 endeavor at the time of invention and addressed by the patent can provide a reason
24 for combining the elements in the manner claimed.” *Id.* at 1742.

ANALYSIS

Claims 16-42 rejected under 35 U.S.C. § 103(a) as unpatentable over Slattery and Ross.

Claims 16-22, 24, 25, and 27

The Appellants argue claims 16-22, 24, 25, and 27 as a group.

Accordingly, we select claim 16 as representative of the group.
37 C.F.R. § 41.37(c)(1)(vii) (2007).

The Examiner found that Slattery described all of the limitations of claim 16 except that Slattery did not describe a medical diagnostic imaging system. To overcome this deficiency, the Examiner found that Ross described a medical diagnostic imaging system in a training environment. The Examiner concluded that it would have been obvious to a person of ordinary skill in the art to have applied Slattery's training system with Ross's medical diagnostic imaging system because Ross described a known use for training systems such as that in Ross (Answer 3-4).

The Appellants contend that Slattery's mentor computer does not control a device through the student computer (Appeal Br. 7:Bottom ¶), but rather directly controls a device independent of the student computer (Appeal Br. 8:Top ¶).

The Examiner responded that claim 16 requires controlling the first computing system via the second computing system, not one computer *per se* by another. The Examiner then construed the term "computing system" to encompass the combined trainee's computer and pod controller in Slattery. The Examiner then found that Slattery's description of the mentor controlling the pod controller described a

1 trainer's computing system controlling a trainee's computing system (Answer 10-
2 12).

3 The Appellants in turn argued that this was an unreasonable construction of a
4 computer system. The Appellants argued the primacy of the Specification in claim
5 construction, citing *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (Reply
6 Br. 2:Bottom ¶ - 3:Last full ¶). The Appellants further argued that there is no
7 support for the Examiner's contention that Slattery's pod controller, which is
8 separate from the computer system designated as reference numeral 12, would be
9 part of that computer system (Reply Br. 5:Second full ¶). The Appellants also
10 argued that a construction in which the pod controller is part of the student's
11 computer system would be in direct opposition to the Specification (Reply Br.
12 6:Top ¶).

13 The Appellants then argued that in Slattery, each of the student and mentor can
14 watch the other separately control the device (Reply Br. 4:Top ¶) and each
15 separately controls the device, concluding that the mentor does not control the
16 device through the student computer (Reply Br. 4:First full ¶). The Appellants
17 concluded that the Examiner used impermissible hindsight in creating such a
18 construction (Reply Br. 7:First full ¶).

19 Thus, the issue before us is whether it was obvious over the combination of
20 Slattery and Ross to have a trainer's computing system control a trainee's
21 computing system. The Appellants do not contest the Examiner's finding that the
22 references describe the step of providing a collaborative computing environment
23 (step [1]) of claim 16. The Appellants also do not contest the Examiner's findings
24 for the Examiner's analysis of step [2] that the references describe: (1)
25 interactively instructing a trainee; (2) using the collaborative computing

1 environment for training; and (3) performing the interactive instruction in an
2 operating system-independent manner.

3 The Examiner is correct that claim 16 refers to a computing system used by a
4 trainee, and not a trainee's computer *per se*. The Specification provides no
5 lexicographic definition of a computing system, but the usual and customary
6 meaning is a network of related computer software, hardware, and data
7 transmission devices (FF 01 & 02). Claim 16 itself imposes no boundary on the
8 scope of a first computing system other than that it is operated by the trainee.

9 Since the claim does not provide clear boundaries as to the scope of what a
10 computing system may contain, and the Specification provides no clear definition,
11 we construe the limitation according to its broadest reasonable interpretation as a
12 network of related computer software, hardware, and data transmission devices.
13 While we agree with the Appellants that *Philips* provided rules of construction in
14 litigation, we must remind the Appellants that the rules of construction differ in
15 examination, where the Appellants have the opportunity to amend claims and
16 resolve ambiguities that lead to interpretations broader than the Appellants
17 otherwise contend.

18 The Board erred in its interpretation of claims [], the error apparently
19 flowing from the Board's choice of an inapplicable legal premise. The
20 Board applied the mode of claim interpretation that is used by courts
21 in litigation, when interpreting the claims of issued patents in
22 connection with determinations of infringement or validity. . . .

23 During patent examination the pending claims must be
24 interpreted as broadly as their terms reasonably allow. When the
25 applicant states the meaning that the claim terms are intended to have,
26 the claims are examined with that meaning, in order to achieve a
27 complete exploration of the applicant's invention and its relation to the
28 prior art. The reason is simply that during patent prosecution when

1 claims can be amended, ambiguities should be recognized, scope and
2 breadth of language explored, and clarification imposed.
3 *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989) (citations omitted). Thus, the
4 ambiguity of the scope of a computing system was recognized by the Examiner,
5 and the Examiner construed that term according to its broadest reasonable
6 interpretation.

7 Slattery is directed to a system for training a user in controlling a device. This
8 system includes a user computer for accepting device control information, and a
9 device controller remotely connected to the user computer. The device controller
10 receives the device control information from the user, and transfers device control
11 information to the device (FF 04). Thus Slattery's system used by the trainee user
12 includes a user computer, a device controller, and a device. Slattery's mentor
13 communications module permits a mentor to monitor and participate in controlling
14 the user devices during a learning exercise (FF 10). Thus, Slattery describes
15 allowing a trainer's computer to control a system used by a trainee. The issue then
16 is whether the system used by Slattery's trainee is a computing system as used by
17 the trainee as in claim 16.

18 We find that the trainee must send its control signals through a user
19 communications module, a device communications, control, and multiplexor
20 module, and an interface to a device module in the pod controller in order to
21 control Slattery's device. These signals must also rely on a device control module
22 (FF 07, 08, 09, 12, & 13). As such, the trainee's control signals control these
23 devices within Slattery's pod controller, and they, along with the trainee user's
24 computer therefore form a network of related computer software, hardware, and
25 data transmission devices.

Slattery's mentor may control these devices, which are used by the trainee and the trainee's computer, in turn (FF 10). We therefore agree with the Examiner that Slattery describes controlling the trainee's computing system via the trainer's computing system. Whether the mentor's computer can control the trainee computing system independent of the trainee's computer *per se*, as argued by the Appellants is simply not relevant to the issue of whether the mentor's computer controls the trainee's computing system, since it is the trainee's computing system, not the trainee's computer alone, that is recited in claim 16.

Claims 23 and 26

The Appellants separately argue claims 23 and 26. Claim 23 further requires remotely interacting with an operating system for the medical diagnostic imaging system. Claim 26 further requires remotely responding to operations of the medical diagnostic imaging system.

The Examiner found that Slattery described remote interaction and response in controlling chemistry equipment (Answer 6). The Appellants contend that, as to claim 23, Slattery relies on a program for interaction called KIBITZ that is not an operating system, and as to claim 26, that Slattery's control and participation does not suggest responding (Appeal Br. 11-13: Claims 23 and 26).

We find that whether KIBITZ is an operating system is not determinative of whether Slattery describes remote interaction with an operating system. Slattery describes remote interaction with the pod controller (FF 04). The pod controller contains control software that enables the pod control system to load starting configurations into the user devices, reset the user devices and save final configurations (FF 08). These are typical functions of operating system software components. Further, even if KIBITZ, which is a program allowing users to

1 interact, is itself not an operating system, it must in turn interact with the users'
2 computers' operating systems for input and output. Thus we find that Slattery
3 describes remotely interacting with an operating system.

4 Further we cannot agree with the Appellants that Slattery's control and
5 participation does not suggest responding. The Appellants do not explain why they
6 would make such a distinction, but by any measure, the signals the pod controller
7 returns to the trainee or mentor are a response. Yet further, claim 26 does not
8 recite who or what performs a response and what the nature of the response is.
9 Thus, either of the mentor or trainee responding to the performance of the
10 controlled devices would have been both predictable and within the scope of claim
11 26. "The combination of familiar elements according to known methods is likely
12 to be obvious when it does no more than yield predictable results." *KSR*, 127 S. Ct.
13 at 1739.

14 *Claims 28-33*

15 The Appellants separately argue claims 28-33 with the same arguments they
16 made supporting the patentability of claim 16 (Appeal Br. 13-14). These arguments
17 were not sufficient to overcome their burden of showing error in the Examiner's
18 rejection of claim 16, *supra*, and are therefore similarly not sufficient for these
19 claims.

20 *Claims 34-42*

21 The Appellants separately argue claims 34-42 with the same arguments they
22 made supporting the patentability of claim 16 (Appeal Br. 14). These arguments
23 were not sufficient to overcome their burden of showing error in the Examiner's
24 rejection of claim 16, *supra*, and are therefore similarly not sufficient for these
25 claims.

1 The Appellants have not sustained their burden of showing that the Examiner
2 erred in rejecting claims 16-42 under 35 U.S.C. § 103(a) as unpatentable over
3 Slattery and Ross.

4 *Claim 16 rejected under 35 U.S.C. § 102(b) as anticipated by Stein.*

5 The Examiner found that Stein described all of the limitations of claim 16 and
6 that claim 16's medical diagnostic imaging system was only a recitation of
7 intended use and did not result in a structural difference between the claimed
8 invention and the prior art (Answer 9).

9 The Appellants contend that anticipation requires that all limitations be found
10 in the prior art (Reply Br. 8:Legal Precedent). We agree. The Examiner admitted
11 that Stein did not describe a medical diagnostic imaging system.

12 The Appellants have sustained their burden of showing that the Examiner erred
13 in rejecting claim 16 under 35 U.S.C. § 102(b) as anticipated by Stein.

14 *Claim 16 rejected under 35 U.S.C. § 103(a) as unpatentable over Stein and Ross.*

15 The Examiner found that Stein described all but one of the limitations of claim
16 16, and in particular that Stein described interactively instructing the trainee in an
17 operating-system independent manner in Stein 7:4-6, describing the teacher's
18 ability to intercept input and output from the student's computer. The Examiner
19 found that Stein did not describe a medical diagnostic imaging system. To
20 overcome this deficiency, the Examiner found that Ross described a medical
21 diagnostic imaging system used in a training environment. The Examiner found
22 that Ross described training in the use of medical images and implicitly found that
23 one of ordinary skill would have known that physicians require training on the
24 medical devices that create the images described by Ross and therefore would have
25 desired a training system for such medical devices. The Examiner concluded that

1 it would have been obvious to a person of ordinary skill in the art to have applied
2 Stein's training system with Ross's medical diagnostic imaging system, to provide
3 the training needed for the medical devices used to create Ross's images (Answer
4 9).

5 The Appellants do not dispute that Stein describes the trainer computing
6 system controlling the trainee computing system, but contend that neither Stein nor
7 Ross describe or suggest control in an operating system-independent manner. The
8 Appellants argue that Stein relies on the operating system to launch a file (Reply
9 Br. 9-10).

10 Thus the sole issue is whether the combination of Stein and Ross suggested
11 controlling another computing system in an operating system-independent manner.
12 We must therefore first construe this limitation. The term "independent" is always
13 ambiguous to a degree since nothing is completely independent. In the case of
14 anything occurring in a computing system, since an operating system is simply the
15 set of software controlling the hardware and their interactions up to some arbitrary
16 level decided by the operating system designers, nothing occurring in a computing
17 system is completely operating system independent. Thus, we must determine the
18 scope of such independence within the context of the application.

19 The support for this limitation is in the Specification ¶ 18 (Appeal Br. 3:First
20 full ¶), which states that the computer systems include workstations that operate on
21 a UNIX platform, or other such as Solaris, IRIX, LINUX and so forth.
22 Collaborative computing between a plurality of computing systems at a plurality of
23 remote locations, where each of the computing systems may have a distinctly
24 different operating system or platform is possible (FF 03).

1 First, we find that these operating systems specifically delineated have a high
2 degree of commonality (FF 20). So the scope of independence is within some
3 degree of commonality. Even if an operating system other than one derived from
4 UNIX were to also be accommodated, one of ordinary skill knew that most
5 operating systems provided substantially similar input and output capabilities and
6 therefore accommodated programs that could be compiled to operate in a
7 substantially similar manner as in any other operating system (FF 21). Therefore,
8 we construe the limitation of “operating system independent manner” to mean that
9 the controlling can be performed by a program that has been compiled for the
10 operating system in which it resides, so that the control occurs independently of the
11 operating system environment. This is consistent with the Examiner’s finding that
12 such independence was shown by Stein’s interception of the student’s input and
13 output stream by the teacher.

14 One of ordinary skill similarly knew that most popular programming languages
15 that required compiling provided a syntax and grammar independent of operating
16 systems (FF 21). Further, one of ordinary skill knew that using open systems with
17 well-documented application program interface (API) linkages made writing
18 programs for any operating system much more practical (FF 22). Ross suggested
19 the use of open systems with its reliance on an open system known as OpenGL for
20 its graphics (FF 17). Thus, not only did one of ordinary skill know of the
21 desirability and techniques to create programs that operated in an operating system
22 independent manner, Ross suggested using techniques such as API’s for making
23 writing such programs more effective. We therefore find that writing programs to
24 control devices as in Ross in an operating system-independent manner was simply
25 a predictable way for creating such programs. “The combination of familiar

1 elements according to known methods is likely to be obvious when it does no more
2 than yield predictable results.” *KSR*, 127 S. Ct. at 1739.

3 The Appellants have not sustained their burden of showing that the Examiner
4 erred in rejecting claim 16 under 35 U.S.C. § 103(a) as unpatentable over Stein and
5 Ross.

6 We have taken administrative notice of certain facts (FF 20, 21, & 22)
7 necessary to properly construe the limitation regarding operating system
8 independence and interpret how Stein meets this limitation. Accordingly, we
9 denominate this rejection of claim 16 under 35 U.S.C. § 103(a) as unpatentable
10 over Stein and Ross as a new ground of rejection.

11 CONCLUSIONS OF LAW

12 The Appellants have sustained their burden of showing that the Examiner erred
13 in rejecting claim 16 under 35 U.S.C. § 102(b) as anticipated by the prior art.

14 The Appellants have not sustained their burden of showing that the Examiner
15 erred in rejecting claims 16-42 under 35 U.S.C. § 103(a) as unpatentable over the
16 prior art.

17 The rejection of claim 16 under 35 U.S.C. § 103(a) as unpatentable over Stein
18 and Ross is denominated as a new ground of rejection.

19 On this record, the Appellants are not entitled to a patent containing claims
20 16-42.

21 DECISION

22 To summarize, our decision is as follows:

- 1 • The rejection of claims 16-42 under 35 U.S.C. § 103(a) as unpatentable over
2 Slattery and Ross is sustained.
- 3 • The rejection of claim 16 under 35 U.S.C. § 102(b) as anticipated by Stein is
4 not sustained.
- 5 • The rejection of claim 16 under 35 U.S.C. § 103(a) as unpatentable over
6 Stein and Ross is sustained.
- 7 • The rejection of claim 16 under 35 U.S.C. § 103(a) as unpatentable over
8 Stein and Ross is denominated as a new ground of rejection within the
9 meaning of 37 C.F.R. § 41.50(b) (2007).

10 Our decision is not a final agency action.

11 Regarding the affirmed rejection(s), 37 CFR § 41.52(a)(1) provides
12 "[a]ppellant may file a single request for rehearing within two months from the
13 date of the original decision of the Board."

14 In addition to affirming the examiner's rejection(s) of one or more claims, this
15 decision contains new grounds of rejection pursuant to 37 CFR § 41.50(b). 37
16 CFR § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph
17 shall not be considered final for judicial review." This Decision contains a new
18 rejection within the meaning of 37 C.F.R. § 41.50(b) (2007).

19 37 C.F.R. § 41.50(b) also provides that Appellants, WITHIN TWO MONTHS
20 FROM THE DATE OF THE DECISION, must exercise one of the following two
21 options with respect to the new rejection:

(1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the Examiner, in which event the proceeding will be remanded to the Examiner. . . .

(2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

Should the Appellants elect to prosecute further before the examiner pursuant to 37 CFR § 41.50(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellant elects prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). See 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

41.50 (b)

Appeal 2007-3481
Application 09/682,238

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